Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

DESCRIPTIVE NOTES RELATIVE TO NINE CLUSTERS.

The limited number of globular clusters and their peculiar distribution makes of interest any contribution to the elucidation of doubtful cases. The following notes refer to clusters whose type is recorded as uncertain, either in the catalogs of Bailey (*H. A.*, 60, *199*, 1908; 76, *43*, 1915) or Melotte (*Mem. R. A. S.*, 60, *175*, 1915), or elsewhere. Some of those below are outside the hemisphere which contains nearly all globular clusters. Descriptions of several have been given by Curtis (*L. O. B.*, *No. 219*, 1912). The plates for Nos. 6229 and 6934 were made by Mr. Pease. All observations are based on photographs made with the 60-inch reflector; the magnitudes are photographic. The positions refer to 1900.0, and galactic coordinates are given in parenthesis.

I. C. 361. R. A. $4^h\ 10^m.7$; Dec. +58° 3′ (115°, +6°)

An open cluster, 9′ in diameter, with magnitudes practically all between 14 and 16. There are less than 100 stars in addition to those of the background, and no trace of nebulosity. Described in I. C. as "? neb. cluster;" Melotte thought it possibly a globular cluster from its appearance on Franklin-Adams chart plates.

N. G. C. 2158. R. A. $6^h\ 1^m.3$; Dec. +24° 6′ (154°, +2°)

A rich open cluster, 5′ in diameter, consisting of 200 stars with magnitudes mostly between 16 and 17, and situated in a fairly rich galactic field. Melotte thought it possibly a globular cluster.

N. G. C. 4147. R. A. $12^h\ 5^m.0$; Dec. +19° 6′ (223°, +78°)

A much condensed globular cluster of very faint stars, situated in an almost starless region. A two minute exposure on a Seed 27 plate shows about 50 cluster stars, none brighter than the fifteenth magnitude and only 20 brighter than the sixteenth; less than 2′ in diameter. A thirty minute exposure shows 300 stars closely condensed, with extreme diameter of 4′ and diameter of nucleus about 1′. A special study of the magnitudes will be made at Mount Wilson.

N. G. C. 6229. R. A. $16^h\ 44^m.2$; Dec. +47° 42′ (40°, +41°)

A globular cluster, very much condensed. A plate showing 1540 stars gives the extreme diameter as 5′ and of the central nucleus, 1′.5. The counts given in *Mt. Wilson Contr.* No. 129 show a trace of ellipticity, notwithstanding the small number of stars involved.

N. G. C. 6402 (M 14). R. A. $17^h\ 32^m.4$; Dec. −3° 11′ (349°, +14°)

A globular cluster, relatively not strongly condensed. The diameter on a plate that shows 5,000 stars is 10′. The brightest stars, which are red, are fainter than the sixteenth magnitude. The distribution for different directions from the center is given in *Mt. Wilson Contr.* No. 129.

N. G. C. 6712. R. A. 18h 47m.6; Dec. −8° 50′ (353°, −6°)

Almost certainly a faint globular cluster in a rich galactic field. In condensation it resembles Messier 14 rather than Messier 3 or 15. A three minute Polar comparison (Seed 27 plate) shows nearly 200 cluster stars brighter than 17.0; but probably none belonging to the system is brighter than 16.2. On a twenty minute plate are 1000 cluster stars brighter than magnitude 19. The diameter is 8′ or 9′. "Probably a globular cluster," Melotte. "Quite small globular cluster," Curtis. Questioned by Bailey.

N. G. C. 6779 (M 56). R. A. 19h 12m.7; Dec. +30° 0′ (30°, +7°)

A globular cluster of faint stars, relatively not strongly condensed. A plate showing 6600 stars indicates a diameter of 10′, with little or no elliptical distribution. A Polar comparison gives 15.5 as the magnitude of the brightest cluster stars, and records less than 50 brighter than magnitude 16. "Possibly a globular cluster, but doubtful," Melotte. Questioned by Bailey.

N. G. C. 6838 (M 71). R. A. 19h 49m.3; Dec. +18° 31′ (24°, −6°)

A very rich symmetrical open cluster in a rich field; diameter 10′. Polar comparisons show that nearly all stars that properly belong to the cluster are between magnitudes 14 and 17.5. Stars of the 19th magnitude are no more frequent in the cluster than outside its bounds, and those of the 18th are very little more numerous. The total number of cluster stars is probably less than 500. "Appears to be a globular cluster," Melotte. "Rather open cluster of faint stars," Curtis.

N. G. C. 6934. R. A. 20h 29m.3; Dec. +7° 4′ (20°, −20°)

A strongly condensed globular cluster. A plate showing 3370 stars gives a diameter of 8′. See *Mt. Wilson Contr.* No. 129.

HARLOW SHAPLEY.

NOTES FROM THE STUDENT'S OBSERVATORY, BERKELEY.

The Summer Session courses in astronomy have been in charge of Professor F. H. Seares of the Mount Wilson Solar Observatory of the Carnegie Institution. Professor Seares is giving one course